# Selenium in Sediments

270 soil cores representing 15 Imperial Valley fields

**Median Se conc. = 0.2 ppm (min = 0.1 max = 1.3 ppm)**

Bottom sediment - 48 surface drains in Imperial Valley

Median Se conc. = **0.5** ppm (min = 0.1 max = 1.7 ppm)

Se in bottom sediment of surface drains excellent correlation with % material finer than 0.062mm (sand/silt break)

Salton Sea bottom sediment – 11 sites

Median Se conc. = **2.7** ppm (min = 0.58 max = 11 ppm)

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# Selenium Changes in Alamo River Delta and Salton Sea

Selenium speciation – special sample June 1989

River side of interface had total Se = 6.35 ug/L

2.56 ug/L in +4 selenite state

3.79 ug/L in +6 selenate state

At interface had total Se 2.4 ug/L (method reporting limit)

**1.79 ug/L in +4 selenite state**

**0.2 ug/L in +6 selenate state**

Salton Sea water = 1 ug/L, none in +6 state

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# Salton Sea Bottom Sediment Sampling Sites

**Bottom sediment samples collected from 11 sites during July 20-22, 1998**

**Samples collected using modified Ekman dredge**

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**Table 1. Speciation of Se (µg/L) in water.**

Summer 2003, UC Riverside

| Samples | Se (IV) | Se (VI) | Organic Se | Total Se |
|---|---|---|---|---|
| White river 2-1 | 0.685 | 2.419 | 0.040 | 3.144 |
| White river 2-2 | 0.625 | 2.318 | 0.213 | 3.156 |
| New river 2-1 | 1.350 | 2.034 | 0.545 | 3.929 |
| New river 2-2 | 1.330 | 2.078 | 0.396 | 3.804 |
| Alamo river 2-1 | 1.075 | 3.932 | 0.202 | 5.209 |
| Alamo river 2-2 | 1.135 | 3.864 | 0.349 | 5.348 |
| SS-S1 2-1 | 0.410 | 0.481 | 0.925 | 1.817 |
| SS-S1 2-2 | 0.560 | 0.268 | 0.843 | 1.671 |
| SS-S2 2-1 | 0.410 | 0.335 | 1.013 | 1.758 |
| SS-S2 2-2 | 0.445 | 0.169 | 1.320 | 1.934 |
| SS-S3 2-1 | 0.440 | 0.375 | 0.912 | 1.728 |
| SS-S3 2-2 | 0.750 | 0.330 | 0.563 | 1.643 |
| SS-B1 2-1 | 0.365 | 0.287 | 0.910 | 1.562 |
| SS-B1 2-2 | 0.450 | 0.311 | 0.698 | 1.459 |
| SS-B2 2-1 | 0.590 | 0.302 | 0.608 | 1.500 |
| SS-B2 2-2 | 0.515 | 0.210 | 0.778 | 1.503 |
| SS-B3 2-1 | 0.455 | 1.104 | 0.534 | 2.093 |
| SS-B3 2-2 | 0.570 | 0.839 | 0.542 | 1.952 |

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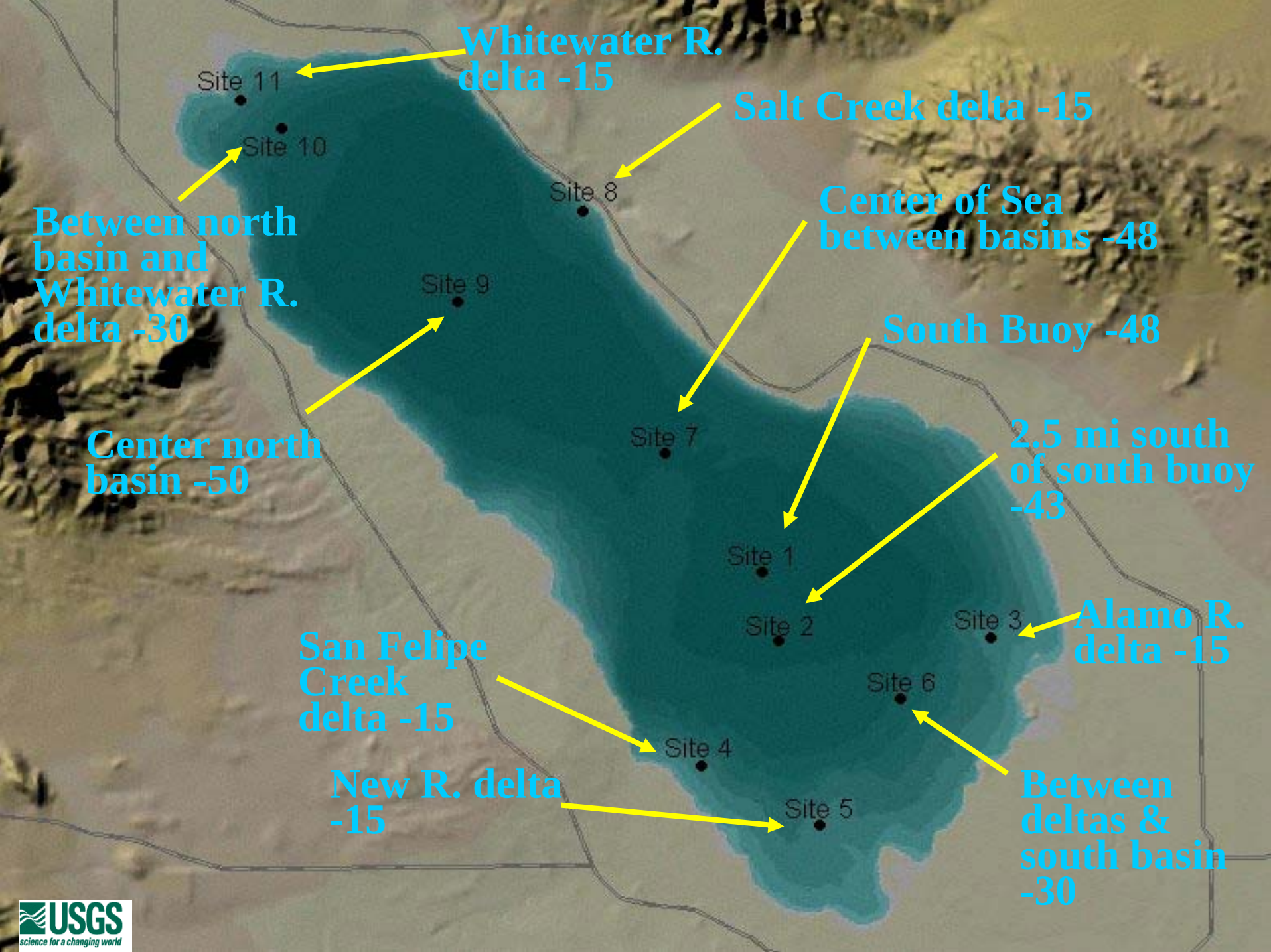
Whitewater R. delta -15
Site 11
Site 10
Salt Creek delta -15
Site 8
Between north basin and Whitewater R. delta -30
Center of Sea between basins -48
Site 9
South Buoy -48
Center north basin -50
Site 7
2.5 mi south of south buoy -43
Site 1
Site 2
Site 3
Alamo R. delta -15
San Felipe Creek delta -15
Site 6
Site 4
New R. delta -15
Site 5
Between deltas & south basin -30
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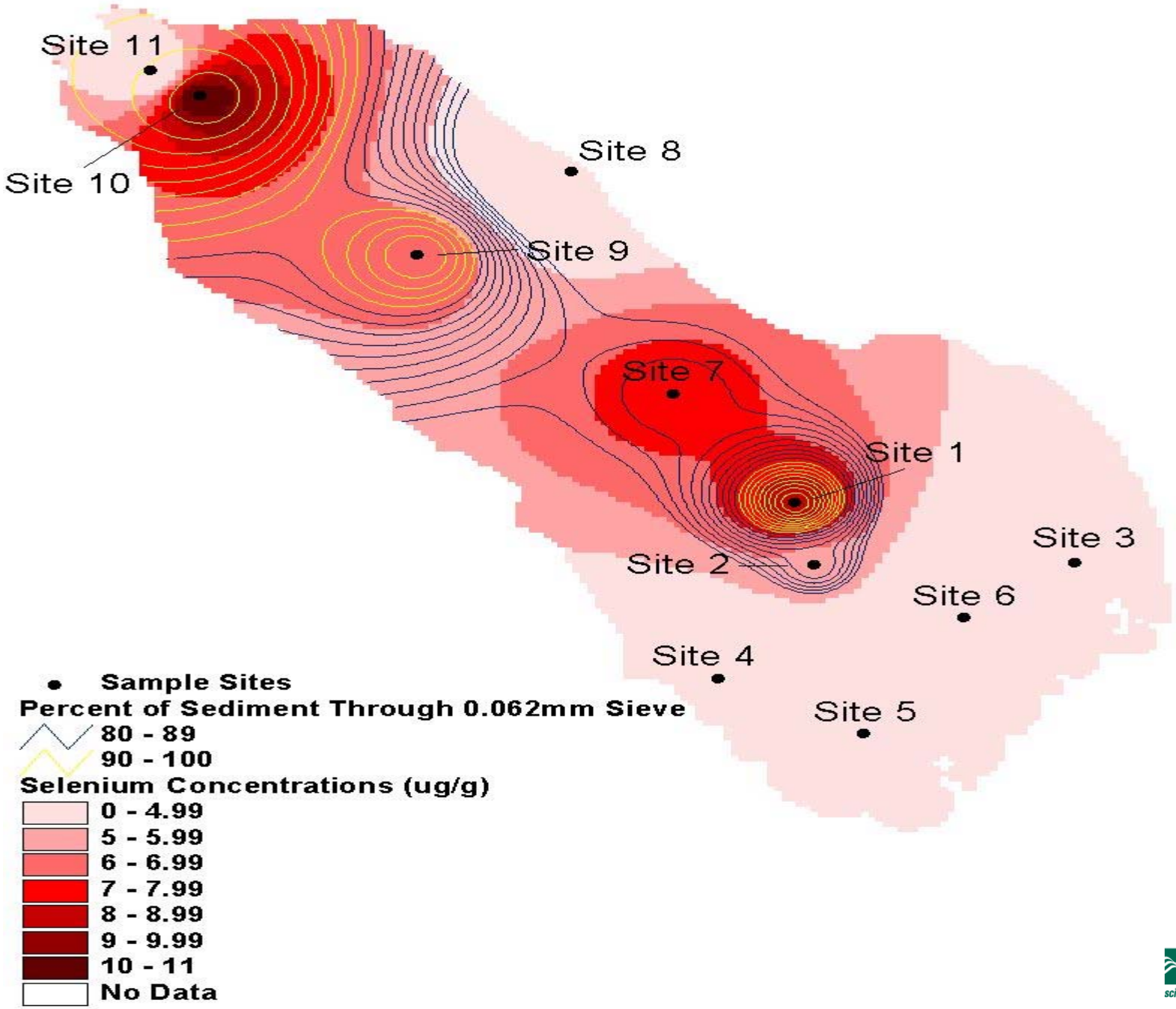


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